

1 **What Is Claimed Is**

2 1. A band including a split compound yarn and a rubber yarn woven
3 together with the split compound yarn.

4 2. The band according to claim 1 wherein the band is made by means of
5 a process including the steps of:

6 making the compound yarn;

7 providing the rubber yarn;

8 weaving the compound yarn together with the rubber yarn so as
9 to form the band; and

10 washing the band so as to split the compound yarn.

11 3. The band according to claim 2 wherein the compound yarn is made of
12 first material and second material.

13 4. The band according to claim 3 wherein the step of making the
14 compound yarn includes the steps of:

15 melting and extruding the first material;

16 melting and extruding the second material;

17 pumping the molten first material and the molten second material
18 at predetermined rates;

19 spinning filaments from the molten first material;

20 spinning filaments from the molten second material;

21 cooling the filaments;

22 extending the filaments so as to form the compound yarn;

23 heating and setting the compound yarn; and

24 reeling the compound yarn.

25 5. The band according to claim 4 wherein the step of making the
26 compound yarn includes a step of facilitating the splitting of the

1 compound yarn.

2 6. The band according to claim 5 wherein the step of facilitating the

3 splitting of the compound yarn is a chemical step.

4 7. The band according to claim 6 wherein the chemical step is taken in

5 the step of melting and extruding one of the first material and the

6 second material.

7 8. The band according to claim 7 wherein the chemical step is a step of

8 adding nucleated agent to one of the first material and the second

9 material.

10 9. The band according to claim 8 wherein the nucleated agent is selected

11 from a group of CaSiO_3 , SiO_2 and MoS_2 .

12 10. The band according to claim 7 wherein the chemical step is a step of

13 adding splitting agent to one of the first material and the second

14 material.

15 11. The band according to claim 10 wherein the splitting agent is

16 superfine Teflon.

17 12. The band according to claim 7 wherein the chemical step is a step of

18 making one of the first material and the second material via mixing

19 20-80% of amorphous polymer with 80-20% of crystal polymer.

20 13. The band according to claim 7 wherein the chemical step is a step of

21 melting the first material and the second material at carefully

22 calculated temperatures so that the stickiness of the first material to

23 the second material is low.

24 14. The band according to claim 5 wherein the step of facilitating the

25 splitting of the compound yarn is a mechanical step.

26 15. The band according to claim 14 wherein the mechanical step is taken

1 in the step of spinning the compound yarn.

2 16. The band according to claim 15 wherein the mechanical step is

3 reeling the compound yarn at a rate of 3000-8000 meter per minute so

4 that the first material crystallizes at a rate adequately different from a

5 rate at which the second material crystallizes.

6 17. The band according to claim 1 wherein the band is a wristband.

7 18. The band according to claim 1 wherein the band is a headband.

8 19. The band according to claim 3 wherein the first material is such as

9 nylon.

10 20. The band according to claim 3 wherein the second material is

11 polyester.

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